



P53821C

January 20, 1999

In Re Application of:

Richard Hyatt

Serial No.: 08/720,070

Filed: September 27, 1996

For: ELECTROMECHANICAL CYLINDER PLUG

Documents filed:

- ☒ Fee Transmittal Ck No. 32082 for \$120.00
- ☒ 4th Supplemental Amendment
- ☒ Notice of Change of Address



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FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1.
These are the fees effective October 1, 1997.
Small Entity payments must be supported by a small entity statement,
otherwise large entity fees must be paid. See Forms PTO/SB/09-12.
See 37 C.F.R. §§1.27 and 1.28.

Complete If Known

Application Number	08/720,070
Filing Date	27 September 1996
First Named Inventor	Hyatt, Jr.
Examiner Name	BOUCHER, D
Group/Art Unit	3508
Attorney Docket No.	P53821C

TOTAL AMOUNT OF PAYMENT (\$)120.00

METHOD OF PAYMENT (check one)

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number: 02-4943
Deposit Account Number: _____

☐ Charge Any Additional Fee Required Under 37 C.F.R. §1.16 and 1.17. ☐ Charge the Issue Fee Set in 37 C.F.R. §1.18 at the Mailing of the Notice of Allowance.

2. ☒ Payment Enclosed:

☒ Check ☐ Money Order ☐ Other
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FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
101	760	201	380	Utility filing fee	\$760.00
106	330	206	165	Design filing fee	\$
107	540	207	270	Plant filing fee	\$
108	760	208	380	Reissue filing fee	\$
114	150	214	75	Provisional filing fee	\$
SUBTOTAL (1)				(\$)	760.00

2. EXTRA CLAIM FEES

	Extra Claims	Fee from below	Fee Paid
Total claims			
Independent Claims			
Multiple Dependent			

** or number previously paid, if greater; For Reissues, see below

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
103	22	203	11	Claims in excess of 20
102	82	202	41	Independent claims in excess of 3
104	270	204	135	Multiple dependent claim, if not paid
109	82	209	41	** Reissue Independent claims over original patent
110	22	210	11	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
105	130	205	65	Surcharge-late filing fee or oath	\$
127	50	227	25	Surcharge-late provisional filing fee or cover sheet	\$
139	130	139	130	Non-English specification	\$
147	2,520	147	2,520	For filing a request for reexamination	\$
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	\$
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	\$
115	110	215	55	Extension for reply within first month	\$
116	400	216	200	Extension for reply within second month	\$
117	950	217	475	Extension for reply within third month	\$
118	1,510	218	755	Extension for reply within fourth month	\$
128	2,060	228	1,030	Extension for reply within fifth month	\$
119	310	219	155	Notice of Appeal	\$
120	310	220	155	Filing a brief in support of an appeal	\$
121	270	221	135	Request for oral hearing	\$
138	1,510	138	1,510	Petition to institute a public use proceeding	\$
140	110	240	55	Petition to revive - unavoidable	\$
141	1,320	241	660	Petition to revive - unintentional	\$
142	1,320	242	660	Utility issue fee (or reissue)	\$
143	450	243	225	Design issue fee	\$
144	670	244	335	Plant issue fee	\$
122	130	122	130	Petitions to the Commissioner	\$
123	50	123	50	Petitions related to provisional applications	\$
126	240	126	240	Submission of Information Disclosure Statement	\$
581	40	581	40	Recording each patent assignment per property (Times number of properties)	\$00.
146	790	246	395	Filing a submission after final rejection (37 C.F.R. §1.129(a))	\$
149	790	249	395	For each additional invention to be examined (37 C.F.R. §1.129(b))	\$

Other Fee (specify) _____

Other Fee (specify) _____

** Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

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SUBMITTED BY

Complete (if applicable)

Typed or Printed Name	Robert E. Bushnell, Esq.	Reg. Number	27,774
Signature	<i>Robert E. Bushnell</i>	Date	January 20, 1999
		Deposit Account User ID	

ROBERT E. BUSHNELL

LAW OFFICES
1522 K ST., NW, SUITE 300
WASHINGTON, DC 20005-1202
(202) 638-5740

CITIBANK F.S.B.
WASHINGTON, DC 20036-0967
(202) 701-2540

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Assistant Commissioner
for Patents
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MEMO Serial No.: 08/720,070 (extra claim covera

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

RICHARD G. HYATT JR.

Serial No.: 08/720,070

Examiner: BOUCHER, D.

Filed: 17 September 1996

Art Unit: 3627

For: ELECTROMECHANICAL CYLINDER PLUG

THIRD (3rd) SUPPLEMENTAL AMENDMENT

Assistant Commissioner
for Patents
Washington, D.C. 20231

Sir:

Supplemental to Applicant's earlier filed three Amendments of 5 August 1998, 17 September 1998, and 13 October 1998, in response to the second, non-final Office action (Paper No. 10) dated 5 February 1998, the following amendments and remarks are respectfully submitted.

Folio: P53821C
Date: 10/23/98
I.D.: REB/kf

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IN THE CLAIMS

Please amend Claims 1, 4 and 6, and add Claims 14 through 24, as follows:

1. (Twice Amended) A plug, comprising:

a first base bearing a keyway providing a first electrical conductor and an orifice spaced-apart from and separated by a mass of said plug from said keyway;

a second base separated by an axial length of said plug from said first base, said second base bearing means for supporting a cam, said mass being perforated by a plurality of radially oriented apertures forming [a linear arrays] an array;

an exterior surface extending between and engaging said first base and said second base;

a sidebar positioned between said first base and said second base to reciprocate between a first location with said sidebar simultaneously engaging said plug and a cylinder surrounding said plug, and a second location releasing said plug for rotation relative to the cylinder;

locking means disposed within said apertures to reciprocate relative to said plug in response to a key inserted into said keyway to accommodate reciprocation of said sidebar relative to said plug and rotation of said plug relative to [a] the cylinder [surrounding said plug] when the key while inserted into said keyway engages in a selected relation with said locking means, and [engaging the cylinder] obstructing said reciprocation absent said selected relation;

a second electrical conductor terminating with an electrical contact exposed to an exterior of said first base through said orifice;

19 an electronic logic circuit borne by said plug while coupled to receive electrical power
20 and data signals via said first and second electrical conductors, and generating control signals in
21 dependence upon said electrical power and data signals; and

22 an electrical operator disposed within one of said apertures, said operator having a
23 distal member travelling in dependence upon said control signals between a first position relative
24 to said exterior surface [enabling rotation of] accommodating said [plug in relation to a cylinder
25 surrounding said plug] reciprocation and a second and different position relative to said exterior
26 surface obstructing said [rotation of said plug in relation the cylinder] reciprocation.

1 4. (Amended) The plug of claim 1, with said electrical operator maintaining said distal
2 member within said plug with said distal member extended not beyond said exterior surface while
3 said distal member is in said first position, and maintaining said [distal member] sidebar in
4 concurrent engagement with said plug and with the cylinder while said distal member is in said
5 second position.

1 6. (Twice Amended) A lock, comprising:
2 a cylinder containing a hollow recess defining a longitudinal axis;
3 a plug bearing a plurality of open radially oriented apertures forming [a linear] an
4 array, said plug being rotatable around said longitudinal axis while resident within said hollow
5 recess, said plug comprising:
6 a first base bearing a keyway providing a first electrical conductor and an

7 orifice spaced-apart from and separated by a mass of said plug from said keyway;

8 a second base separated by an axial length of said plug from said first base,
9 said second base bearing means for supporting a cam;

10 an exterior surface extending between and engaging said first base and said
11 second base;

12 a sidebar positioned between said first base and said second base to reciprocate
13 between a first location with said sidebar simultaneously engaging said plug and said cylinder
14 surrounding said plug, and a second location releasing said plug for rotation relative to the cylinder;

15 locking means disposed within said apertures to reciprocate relative to said
16 cylinder in response to a key inserted into said keyway to accommodate reciprocation of said
17 sidebar relative to [rotation of] said plug relative to [a] said cylinder [surrounding said plug]
18 when the key while inserted into said keyway engages in a selected relation with said locking
19 means and [engaging the cylinder] obstructing said reciprocation absent said selected
20 relation;

21 a second electrical conductor terminating with an electrical contact exposed
22 to an exterior of said first base through said orifice;

23 an electronic logic circuit borne by said plug, coupled to receive electrical
24 power and data signals via said first and second electrical conductors, and generating control
25 signals in dependence upon said electrical power and data signals; and

26 an electrical operator borne by said plug, disposed within one of said
27 apertures, said operator having a distal member radially reciprocating along an axis

transverse to said longitudinal axis, in dependence upon said control signals between a first position relative to said exterior surface [enabling said rotation of] accommodating said [plug in relation to said cylinder surrounding said plug] reciprocation and a second and different position relative to said exterior surface obstructing in concert with said locking means, said [rotation of said plug in relation said cylinder] reciprocation.

--14. A lock, comprising:

a cylinder containing a hollow interior recess defining a longitudinal axis, and bearing a slot within said recess; and

a plug rotatable from a rest orientation around said longitudinal axis while resident within said hollow recess relative to said cylinder; and

a bar positioned between said first end and second end while extending into said slot, and providing simultaneous engagement of said cylinder and said plug while said cylinder remains in said rest orientation;

said plug comprising:

a first base bearing a keyway providing a first electrical conductor and an orifice spaced-apart from and separated by a mass of said plug from said keyway;

a second base separated by an axial length of said plug from said first base, said second base disposed to support a cam, said mass being perforated by a radially oriented aperture;

an exterior surface extending between said first base and said second base;

16 retaining means oriented to retain a shank of a key inserted into said keyway
17 while said plug remains in an orientation other than said rest orientation relative to said
18 cylinder, and to accommodate withdrawal of the key from said keyway while said plug is in
19 said rest orientation;

20 a second electrical conductor terminating with an electrical contact exposed
21 to an exterior of said first base through said orifice;

22 an electronic logic circuit comprising a memory storing a code, said circuit
23 being borne by said plug and coupled to receive electrical power and data signals via said
24 first and second electrical conductors, said circuit generating control signals in dependence
25 upon correspondence between said code and information borne by said data signals; and

26 an electrical operator borne by said plug, said operator having a distal member
27 travelling in dependence upon said control signals between a first position relative to said
28 exterior surface maintaining said simultaneous engagement and a second and different
29 position relative to said exterior surface accommodating movement between said plug and
30 said cylinder.

1 --15. The lock of claim 14, further comprising:

2 said bar comprising a sidebar positioned between said first base and said second base
3 to reciprocate between a first location while providing said simultaneous engagement, and a
4 second location releasing said plug for rotation relative to said cylinder; and

5 said distal member being oriented within said plug to move relative to said plug to

6 accommodate reciprocation of said sidebar relative to said plug and rotation of said plug from said
7 rest orientation relative to the cylinder when a key while inserted into said keyway generates said
8 data signals representing information having a selected said correspondence with said code, and
9 obstructing said reciprocation absent said selected correspondence.

1 --16. The lock of claim 14, further comprising:

2 said bar comprising an arm arcuately engaging said cylinder and a detent extending
3 from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to said plug to
5 accommodate passage of said detent relative to said distal member during rotation of said plug from
6 said rest orientation relative to the cylinder when a key while inserted into said keyway generates
7 said data signals representing information having a selected said correspondence with said code, and
8 obstructing said rotation of said plug from said rest orientation by engaging said detent absent said
9 selected correspondence.

1 --17. The lock of claim 14, further comprising:

2 said bar comprising an arm arcuately engaging said cylinder and a detent extending
3 from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to said plug to
5 accommodate passage of said detent relative to said distal member during rotation of said plug from
6 said rest orientation relative to the cylinder when a key while inserted into said keyway generates

7 said data signals representing information having a selected said correspondence with said code,
8 obstructing said rotation of said plug from said rest orientation by engaging said detent absent said
9 selected correspondence, and accommodating passage of said detent relative to said distal member
10 during rotation of said plug from an orientation other than said rest orientation to said rest
11 orientation.

1 --18. The lock of claim 14, further comprising:

2 said bar comprising an arm arcuately engaging said cylinder and a detent extending
3 from said arm and through said slot; and

4 said distal member being oriented within said plug to move relative to said plug to
5 accommodate passage of said detent relative to said distal member during rotation of said plug from
6 said rest orientation relative to the cylinder when a key while inserted into said keyway generates
7 said data signals representing information having a selected said correspondence with said code, and
8 obstructing said rotation of said plug from said rest orientation by engaging said detent absent said
9 selected correspondence when said rotation is in a first direction, and accommodating said rotation
10 of said plug from said rest orientation despite an absence of said selected correspondence when said
11 rotation is in a second and opposite direction.

1 --19. The lock of claim 14, further comprising:

2 said bar comprising an arm arcuately engaging said cylinder and a detent extending
3 from said arm and through said slot; and

4 said distal member being oriented within said plug in an engagement of said detent
5 to obstruct said rotation of said plug from said rest orientation, and to move relative to said plug
6 from said engagement of said detent obstructing said rotation of said plug from said rest orientation
7 to an accommodation of passage of said detent relative to said distal member during rotation of said
8 plug from said rest orientation relative to the cylinder when a key while inserted into said keyway
9 generates said data signals representing information having a selected said correspondence with said
10 code, and continuing said accommodation despite intermittent removal of the key from said keyway.

1 --20. The lock of claim 14, further comprising:

2 said bar comprising an arm arcuately engaging said cylinder and a detent extending
3 from said arm and through said slot; and

4 said distal member being oriented within said plug in an engagement of said detent
5 to obstruct said rotation of said plug from said rest orientation, and to move relative to said plug
6 from said engagement of said detent obstructing said rotation of said plug from said rest orientation
7 to an accommodation of passage of said detent relative to said distal member during rotation of said
8 plug from said rest orientation relative to the cylinder when a key while inserted into said keyway
9 generates said data signals representing information having a selected said correspondence with said
10 code, and continuing said accommodation despite intermittent removal of the key from said keyway
11 absent subsequent said generation of data signals representing information having said selected
12 correspondence with said code.

1 --21. The lock of claim 16, further comprising:

2 a sidebar positioned between said first base and said second base to provide
3 reciprocation between a first location with said sidebar providing simultaneous engagement with said
4 plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;
5 and

6 an electrical solenoid borne by said plug, said solenoid having a distal armature
7 travelling in dependence upon said control signals between a third position relative to said exterior
8 surface maintaining said simultaneous engagement and a fourth and different position relative to said
9 exterior surface accommodating said reciprocation.

1 --22. The lock of claim 17, further comprising:

2 a sidebar positioned between said first base and said second base to provide
3 reciprocation between a first location with said sidebar providing simultaneous engagement with said
4 plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;
5 and

6 an electrical solenoid borne by said plug, said solenoid having a distal armature
7 travelling in dependence upon said control signals between a third position relative to said exterior
8 surface maintaining said simultaneous engagement and a fourth and different position relative to said
9 exterior surface accommodating said reciprocation.

1 --23. The lock of claim 18, further comprising:

2 a sidebar positioned between said first base and said second base to provide
3 reciprocation between a first location with said sidebar providing simultaneous engagement with said
4 plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;
5 and

6 an electrical solenoid borne by said plug, said solenoid having a distal armature
7 travelling in dependence upon said control signals between a third position relative to said exterior
8 surface maintaining said simultaneous engagement and a fourth and different position relative to said
9 exterior surface accommodating said reciprocation.

1 --24. The lock of claim 19, further comprising:

2 a sidebar positioned between said first base and said second base to provide
3 reciprocation between a first location with said sidebar providing simultaneous engagement with said
4 plug and said cylinder, and a second location releasing said plug for rotation relative to the cylinder;
5 and

6 an electrical solenoid borne by said plug, said solenoid having a distal armature
7 travelling in dependence upon said control signals between a third position relative to said exterior
8 surface maintaining said simultaneous engagement and a fourth and different position relative to said
9 exterior surface accommodating said reciprocation.

REMARKS


Claims 1 through 24 are pending in this application. Claims 1, 4, and 6 have been amended in various particulars to conform to the elected species, while claims 14 through 24, directed to both the elected species and to other species, are newly added in order to expedite this compacted prosecution. These claims are deemed to be allowable for the reasons set forth in Applicant's earlier filed response.

Gokcebay '777 uses a solenoid operator analogous to the embodiment set forth in Applicant's non-elected Fig. 8H; in contradistinction, the amended and newly added claims are directed to species shown *inter alia*, by Figs. 1 through 8G. The Examiner has already determined that the species of Fig. 8H is patentably distinct "from the others due to different elements being shown by the figures." In view of the fact that the Examiner has made the requirement for election of species final, Dokcebay '777 has no relevant to the patentability of the pending claims.

In view of the foregoing amendments, arguments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

A fee of \$85.00 is incurred by the addition of one (1) independent claim in excess of 3 and four (4) claims in excess of 20. Applicant's check drawn to the order of Commissioner accompanies this Response. Should the check become lost, should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,


Robert E. Bushnell,
Attorney for the Applicant
Registration No.: 27,774

1511 "K" Street N.W., Suite 425
Washington, D.C. 20005
(202) 638-5740

Folio: P53821C
Date: 10/23/98
I.D.: REB/kf